

P21519.A03

Application No. 09/926,513

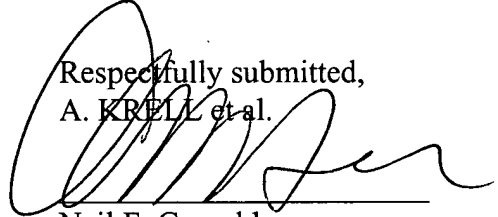
Applicants note that the present amendment is being presented to even more clearly recite Applicants' invention by placing the claimed subject matter even more in accordance with standard U.S. practice and idiomatic English, and is not intended to be a narrowing amendment.

Still further, the specification has been amended to be more in accordance with idiomatic English and standard U.S. practice.

In order that the record is complete, Applicants note that at page 19, line 29, "150 g" should, in fact, be ---51 g---.

Should there be any questions, the Examiner is invited to contact the undersigned at the below listed number.

Respectfully submitted,
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July 9, 2002
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APPENDIX
MARKED-UP COPY OF SPECIFICATION AMENDMENTS

Marked-up copy of paragraph appearing at page 1, lines 12-24:

Ceramic sintered products based on aluminum oxide (Al_2O_3), particularly corundum ($\alpha\text{-Al}_2\text{O}_3$), are widely used due to the advantageous chemical and oxidative resistance of these products, in particular in the latter modification. This applies both to dense sintered products (for example, as tool material or wear-resistant machine parts), and to porous components (for example, as catalyst carriers or as filtering material). While dense structures having crystal sizes $> 2\mu\text{m}$ have been [prior art] known for a long time, it has been possible to produce submicron structures only since the mid-80s by new sol/gel processes and since the beginning of the 90s as a result of the availability of finer crystalline corundum powders (grain size $\geq 150\text{ nm}$). Since then, the development of more and more finely structured sintered structures has been a priority goal for ceramic material development, both in the field of dense sintered products with the goal of greater hardness and wear resistance, and in the field of porous materials, e.g., for ultrafiltration membranes. Future advances are determined decisively by further development of more and more fine-grained raw materials.

Marked-up copy of paragraph appearing at page 10, lines 3-6:

The [joint task of the] present inventions [is to provide] relates to a process for the production of chlorine-free nanocorundum of various porosities as [the] an end or intermediate product, whereby the intermediate product can be processed further according to the invention to other products according to the invention.

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Marked-up copy of paragraph appearing at page 24, lines 1-6:

A technologically relevant criterium for the actual redispersibility of a nano corundum powder produced by annealing is its usability in a shaping process low in defects and with a low [dense] sintering temperature [of the compact forming body made possible in this way] giving dense compacts from the shaped bodies. In an example for the production of dense sintered corundum products of nano corundum powder, particular importance was, moreover, focused on a high purity of the processes and products, any doping to promote the dense sintering or to limit the grain growth was abandoned.

Marked-up copy of paragraph appearing at page 24, lines 10-16:

The synthesis of the nano corundum powder resulted as described in example 1 with the following differences: (1) highly pure aluminum nitrate ($\text{Al}(\text{NO}_3)_3$, purity >99%), was used as inorganic raw material, (2) after aging for 3 days, the large proportion of the water was separated by centrifugation and the remaining gel-like bottom sediments were freeze dried, (3) commercial grade, highly pure Al_2O_3 grinding balls (purity >99.9%) were used for the dispersion grinding reduced to 3 h of the aqueous suspension of calcinated powder in a high-speed horizontal attrition ball mill.